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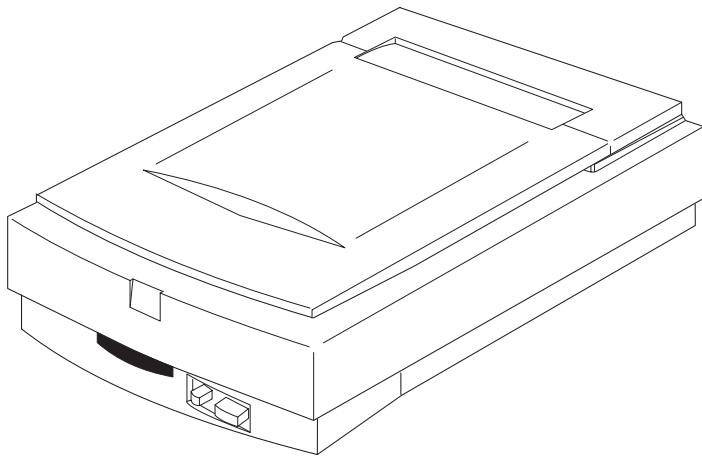
GT-9000

PRODUIT

SERVICE MANUAL



SERVICE MANUAL



Color Imaging Scanner
EPSON GT-9600



EPSON®

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PRECAUTIONS

Precautionary notations throughout the text are categorized relative to 1) Personal injury and 2) damage to equipment.

DANGER Signals a precaution which, if ignored, could result in serious or fatal personal injury. Great caution should be exercised in performing procedures preceded by DANGER Headings.

WARNING Signals a precaution which, if ignored, could result in damage to equipment.

The precautionary measures itemized below should always be observed when performing repair/maintenance procedures.

DANGER

1. ALWAYS DISCONNECT THE PRODUCT FROM THE POWER SOURCE AND PERIPHERAL DEVICES PERFORMING ANY MAINTENANCE OR REPAIR PROCEDURES.
2. NO WORK SHOULD BE PERFORMED ON THE UNIT BY PERSONS UNFAMILIAR WITH BASIC SAFETY MEASURES AS DICTATED FOR ALL ELECTRONICS TECHNICIANS IN THEIR LINE OF WORK.
3. WHEN PERFORMING TESTING AS DICTATED WITHIN THIS MANUAL, DO NOT CONNECT THE UNIT TO A POWER SOURCE UNTIL INSTRUCTED TO DO SO. WHEN THE POWER SUPPLY CABLE MUST BE CONNECTED, USE EXTREME CAUTION IN WORKING ON POWER SUPPLY AND OTHER ELECTRONIC COMPONENTS.

WARNING

1. REPAIRS ON EPSON PRODUCT SHOULD BE PERFORMED ONLY BY AN EPSON CERTIFIED REPAIR TECHNICIAN.
2. MAKE CERTAIN THAT THE SOURCE VOLTAGES IS THE SAME AS THE RATED VOLTAGE, LISTED ON THE SERIAL NUMBER/ RATING PLATE. IF THE EPSON PRODUCT HAS A PRIMARY AC RATING DIFFERENT FROM AVAILABLE POWER SOURCE, DO NOT CONNECT IT TO THE POWER SOURCE.
3. ALWAYS VERIFY THAT THE EPSON PRODUCT HAS BEEN DISCONNECTED FROM THE POWER SOURCE BEFORE REMOVING OR REPLACING PRINTED CIRCUIT BOARDS AND/OR INDIVIDUAL CHIPS.
4. IN ORDER TO PROTECT SENSITIVE MICROPROCESSORS AND CIRCUITRY, USE STATIC DISCHARGE EQUIPMENT, SUCH AS ANTI-STATIC WRIST STRAPS, WHEN ACCESSING INTERNAL COMPONENTS.
5. REPLACE MALFUNCTIONING COMPONENTS ONLY WITH THOSE COMPONENTS BY THE MANUFACTURE; INTRODUCTION OF SECOND-SOURCE ICs OR OTHER NONAPPROVED COMPONENTS MAY DAMAGE THE PRODUCT AND VOID ANY APPLICABLE EPSON WARRANTY.

About This Manual

This manual describes basic functions, theory of electrical and mechanical operations, maintenance and repair procedures of GT-9600. The instructions and procedures included herein are intended for the experienced repair technicians, and attention should be given to the precautions on the preceding page.

Contents

This manual consists of six chapters and Appendix.

CHAPTER 1. PRODUCT DESCRIPTIONS

Provides a general overview and specifications of the product.

CHAPTER 2. OPERATING PRINCIPLES

Describes the theory of electrical and mechanical operations of the product.

CHAPTER 3. DISASSEMBLY AND ASSEMBLY

Provides the step-by-step procedures for disassembling and assembling the product.

CHAPTER 4. TROUBLESHOOTING

Describes the step-by-step procedures for the troubleshooting.

CHAPTER 5. ADJUSTMENTS

Provides Epson-approved methods for adjustment.

CHAPTER 6. MAINTENANCE

Provides preventive maintenance procedures and the lists of Epson-approved lubricants and adhesives required for servicing the product.

APPENDIX Provides the following additional information for reference:

- Connector pin assignments
- Electric circuit boards components layout
- Exploded diagram
- Electrical circuit boards schematics

Symbols Used in This Manual

Various symbols are used throughout this manual either to provide additional information on a specific topic or to warn of possible danger present during a procedure or an action. Be aware of all symbols when they are used, and always read WARNING, CAUTION or NOTE messages.



Indicates an operating or maintenance procedure, practice or condition that, if not strictly observed, could result in injury or loss of life.



Indicates an operating or maintenance procedure, practice, or condition that, if not strictly observed, could result in damage to, or destruction of, equipment.



May indicate an operating or maintenance procedure, practice or condition that is necessary to accomplish a task efficiently. It may also provide additional information that is related to a specific subject, or comment on the results achieved through a previous action.

Revision Status

[illegible]

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CHAPTER

1

PRODUCT DESCRIPTION

1.1 Overview

This scanner is a revised model of GT-9500 and high-resolution color image scanner for the various use from the designer to the office user. Main features of this scanner are as follow.

1.1.1 Features

- High Quality: 800 dpi, 12bit-in, 12bit-out
OD Value MAX 3.3
- High Speed: Exposure Time 7.5msec/line at 800dpi
Scanning Time 75 Sec/A4, Full color
- Command Level: ESC/I-B8
- I/F: SCSI

Table 1-1. Optional Items

No.	Name
B81316*	ADF(Auto Document Feeder)
B81315*	TPU (Transparency Uni)

NOTE: * The number represented by an asterisk varies, depending on the country.

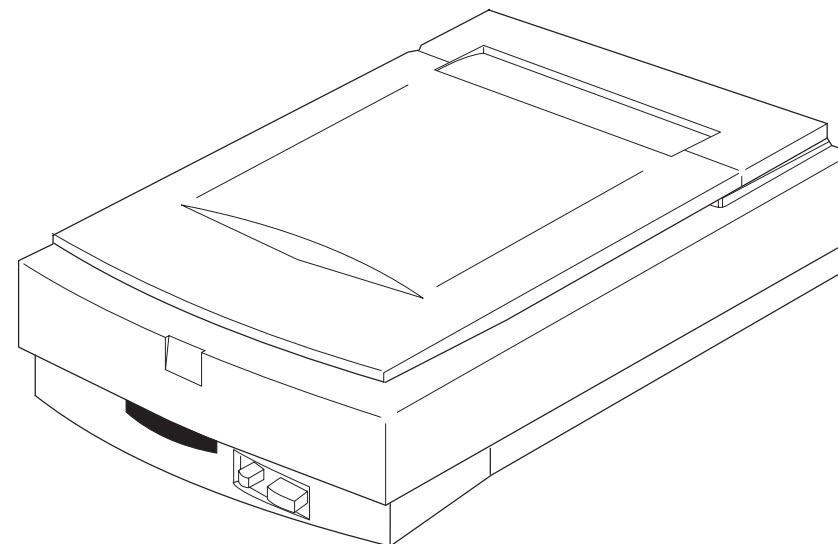


Figure 1-1. Exterior View of GT-9600

1.2 Specifications

1.2.1 General Specifications

- Product Type* Flatbed color image scanner
- Sub-scanning device: Movement of the Scanning Head
- Photoelectric device: Color CCD Line Sensor
- Maximum Read Area: 8.5 x 11.7 (216 x 297 mm)
- Maximum Effective Picture Element: 6800 x 9360 pixels (800dpi)
- Scanning Resolution: Main 800 dpi optical
Sub Max. 3200 dpi with microstep
- Output Resolution: 50 ~ 6400 dpi (1 dpi step)

- ☐ Scanning Speed(600 dpi, Draft Mode):
 - Color 7.5 msec/line
 - Monochrome(bi-level) 7.5 msec/line
- ☐ Color Separation: By the color filter of CCD
- ☐ Command Level: ESC/I-B8
- ☐ Zoom: 50% to 200% (1% step)
- ☐ Pixel depth: 1-12 bits/pixel (Input 12 bits/pixel)
- ☐ Gamma Correction:
 - CRT 2 level (A, B)
 - PRINTER 3 level (A, B, C)
 - User defined 1 level
- ☐ Color Correction:
 - Impact-Dot Printer
 - Thermal Printer
 - Ink-Jet Printer
 - CRT Display
- ☐ Brightness: User defined
- ☐ Line Art:
 - 7 Level
 - Fixed threshold
- ☐ Digital half-toning:
 - TET
 - AAS
- ☐ Bi-level, Quad-level:
 - Error Diffusion 3 mode (A,B,C)
 - Dither(Resident) 4 mode(A, B, C, D)
 - Dither(User defined) 2 mode (A, B)
- ☐ Interface(Resident): SCSI(50-pin Half pitch Connectors)
- ☐ Light Source: White Cold cathode Fluorescent Lamp
- ☐ Option: TPU, ADF

1.2.2 Electrical Specification

- ☐ Rated Voltage: AC100-120V/220V-240V
- ☐ Input Voltage:
 - AC100 -120V $\pm 10\%$
 - AC220 -240V $\pm 10\%$
- ☐ Rated Current:
 - 0.8A(Input AC 100V)
 - 0.4A(Input AC 220V)
- ☐ Rated Frequency Range: 50-60 Hz
- ☐ Input Frequency Range: 49.5-60.5 Hz
- ☐ Power consumption: Approx.40W
- ☐ Insulation Resistance: 10M Ohms at 500 VDC(between AC line and chassis)
- ☐ Dielectric strength: AC 1.5kV, 1 min (between AC Line and chassis)

1.2.3 Safety, EMC

- ☐ Safety:
 - UL1950 (UL)
 - CSA C22.2 NO.950 (CSA)
 - EN60950 (VDE)
 - EN60950 + Nordic deviation(NEMKO)
- ☐ EMC:
 - FCC Part 15 Subpart B Class B
 - CSA C108.8 Class B
 - AS/NZS3548 Class B
 - CISPR Pub22 Class B
 - CNS13438 Class B
- ☐ CE Marking:
 - Low Voltage Directive 73/23/EEC
 - EN60950

EMC Directive 89/336/EEC

EN55022 Class B
 EN61000-3-2
 EN61000-3-3
 EN 50082-1
 EC 801-2/801-3/801-4

1.2.4 Resistance to electric noise

- ☐ Static electricity: Panel - 10kv
 Metal-7kV /150pF, 150 Ohms

1.2.5 Environmental Conditions

- ☐ Temperature Operating: 5 °C to 35 °C
 Storage: -25 °C to 60 °C
- ☐ Humidity Operating: 10 to 80%, no condensation
 Storage: 10 to 85%, no condensation

1.2.6 Reliability

- ☐ Main unit MCBF 100000 cycle

1.2.7 Operating Conditions

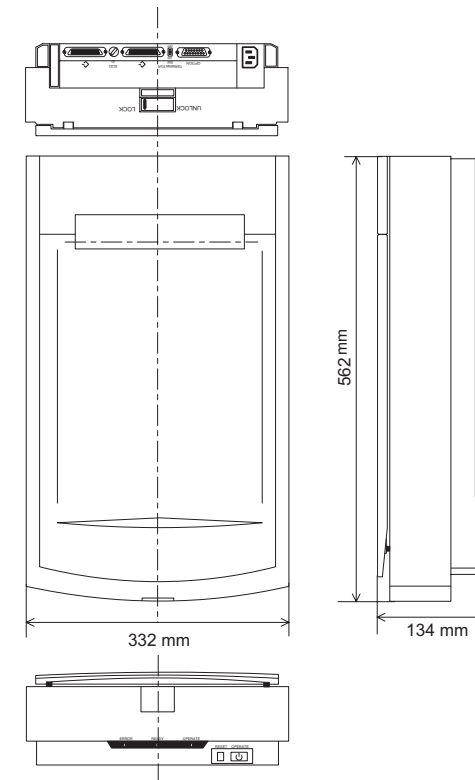
- ☐ Dust Ordinary office or home conditions.
 Extreme dust should be avoided.
- ☐ Illumination Operation under direct sunlight or near strong
 light source is not guaranteed and should be
 avoided.

1.2.8 Document

- ☐ Reflective type: Documents which has a smooth surface
- ☐ Transparency type: (With transparency unit)
 Reversal film
 Negative film

1.2.9 Physical Dimension

- ☐ Dimension 332(W) x 562(D) x 134(H) mm
- ☐ Weight Approximately 8.5Kg



1.3 Interface

This section explains interface of this scanner. This scanner is equipped with SCSI as standard interface. Refer to Service Manual of GT-9500 for pin alignment.

1.3.1 SCSI

Any items not included in this specification shall be in compliance with ANSI X3. 131-1994 (SCSI 2).

- ☐ Function: The following functions are available, which are included in ANSI X3. 131-1994 (SCSI 2).

1. Bus free phase
2. Arbitration phase
3. Selection/Re-selection phase
4. Command phase
 - Note) The LUN(Logical Unit Number) is fixed at "0" in this device.
 - The command Link Function is not supported.
5. Data phase
 - Data in phase
 - Data out phase
6. Status phase
7. Message phase
 - Message in phase
 - Message out in phase
8. Attention condition
9. Reset condition

SCAM(SCSI Configured Auto Matically specification) [ANSI T10/1142 rev.15]

- ☐ Electric Specification
 - Compliant to ANSI X3. 131-1994 (SCSI 2)
 - Single ended
- ☐ Connector
 - Two 50-pin connectors (Half Pitch)
- ☐ Terminator
 - Internal terminator
 - Enable to control "active" or "inactive" by a switch. (SW=ON --- Terminator available)
- ☐ SCSI ID
 - The SCSI ID is set with a rotary switch on the rear panel.
 - The switch numbers are corresponded to the available address and can be set from 0 to 7. Factory setting ID=2.
- ☐ Command
 - This device use the following group "0" processor commands.

Table 1-2. Command List

Command	Code	Description
Test Unit Ready	00h	Confirm for operation
Request Sense	03h	Require a Sense data*1
Receive	08h	Data transmission from Target to Initiator
Send	0Ah	Data Transmission from Initiator to Target
Inquiry	12h	Require information of SCSI devise*2
Send Diagnostic	1Dh	Send diagnostic

NOTE: *1 Only the extension sense data format is supported for sense data returned by the Request Sense Command.

*2 The Inquiry data is as follows. (see the next page)

byte	data		
0	03h	Peripheral device type:	: 3(Processor)
1	00h	RMB	: : 0
		device Type restriction:	: 0
2	02h	ISO Version	: : 0
		ECMA Version	: : 0
		ANSI Version	: : 2
3	02h	AENC	: : 0
		Trml0P	: : 0
		Response data format:	: 2
4	23h		
5	00h		
6	00h		
7	00h		
Vender unique parameter byte:			
		'EPSON', 20h, 20h, 20h	
		'SCANNER', 20h, 'xxxxxxx', 20h, '****',	
		00h, 00h, 00h, FFh]	

Note: '****' ROM version

□ Status: All bits are defined as follows.

Table 1-3. Status

Status	Status Bits							
	7	6	5	4	3	2	1	0
Good	R	R	0	0	0	0	0	R
Check Condition	R	R	0	0	0	0	1	R
Busy	R	R	0	0	1	0	0	R

NOTE: R: means reserved bit.

Table 1-4. Message

Message	Code	Direction	Completion of ATN
Command Complete	00h	In	--
Extended Messages	01h	In/Out	--
Save Data Pointer	02h	In	--
Restore Pointer	03h	In	--
Disconnect	04h	In	--
Initiator Detect Error	05h	Out	Yes
Abort	06h	Out	Yes
Message Reject	07h	In/Out	Yes(Out)
No Operation	08h	Out	Yes
Message Parity Error	09h	Out	Yes
Bus Device Reset	0Ch	Out	Yes
Identify	80h-FFh	In/Out	No(Out)

NOTE: Out: Target → Initiator
In: Initiator → Target

Table 1-5. Extended Message

Extended Message Code	Message length (Byte)	Message	Direction	Completion of ATN
01H	5	Synchronous Data Transfer Request	In/Out	Yes(out)
03H	4	Write Data Transfer Request	In/Out	Yes(out)

NOTE: Out: Target → Initiator
In: Initiator → Target

1.4 Switch and Lamps

Since the basic components of this scanner is same as the GT-9500, only changed parts are explained here.

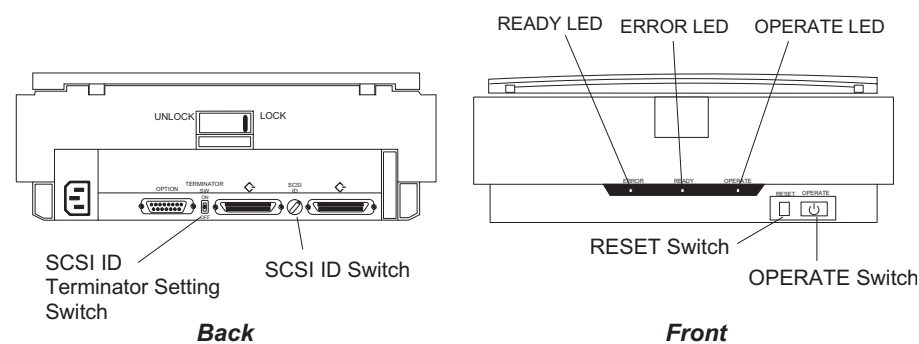


Figure 1-2. Switch and LED Lamps

1.4.1 Switch

SCSI ID rotary switch:

0-7: SCSI-ID (factory setting 2)

*: The carriage moves to carriage lock position when power is turned on.

Other:Reserved

1.4.2 Error

1.4.2.1 Cause and Remedy when errors happen

Fatal Errors

[Remedy]

Remove the causes and turn back on the power.

Send ESC @ code.

Send Bus Device Reset Message of SCSI.

Assert RST signal of SCSI.

1.5 Command Specification

Refer to the Service Manual of GT-9500.

1.6 Control Code

Since the basic components of this scanner is same as the GT-9500, only newly added or changed codes are listed here.

1.6.1 Control Code

Table 1-6. Newly Added Codes

Classification	Function	Code
Image Processing	Download color correction	ESC m d1...d9
	Set Threshold	ESC t i
Support, other	Set Film Type	ESC N i

1.6.2 Function of Control Codes

1.6.2.1 Resolution Setting

By this command, the resolution can be set from 50 dpi to 400dpi.

1.6.2.2 Download color correction

By this command, color correction can be set.

1.6.2.3 Set Threshold

Controls the threshold values

1.6.2.4 Set Film Type

Sets the color balance when reading the target by using TPU.

1.7 Main Components

- ☐ B077 Main Board: Main Control Board
- ☐ B077 ISN Board: Sensor Circuit Board
- ☐ B035 PSB Board: Power Supply Board
- ☐ Scanner Head (Carriage Assembly)
- ☐ Carriage Mechanism
- ☐ Housing
- ☐ Document Cover

Since the basic components of this scanner is same as the GT-9500, only changed parts are explained here.

1.7.1 B077 Main Board

The main control circuit, B077 Main Board controls various parts by 16-bit CPU M8S/2350 Clock Frequency 20 MHz. Also, gate array and memory for image processing and motor drive circuit for moving the scanner head are also mounted on this board.

1.7.2 B077 ISN Board

This board converts the signal(Analog signal) read by Color CCD sensor into the digital and sends it to the Main Board.

CHAPTER

2

OPERATING PRINCIPLES

2.1 Control Circuit

Since the basic component of GT-9600 is same as GT-9500, only particular items exclusively for GT-9600 are explained here.

2.1.1 Overview of Control Circuit

B077 Main Control Circuit in this scanner uses "16-bit one chip CPU H8S/2350" as CPU by clock frequency 20Mhz.

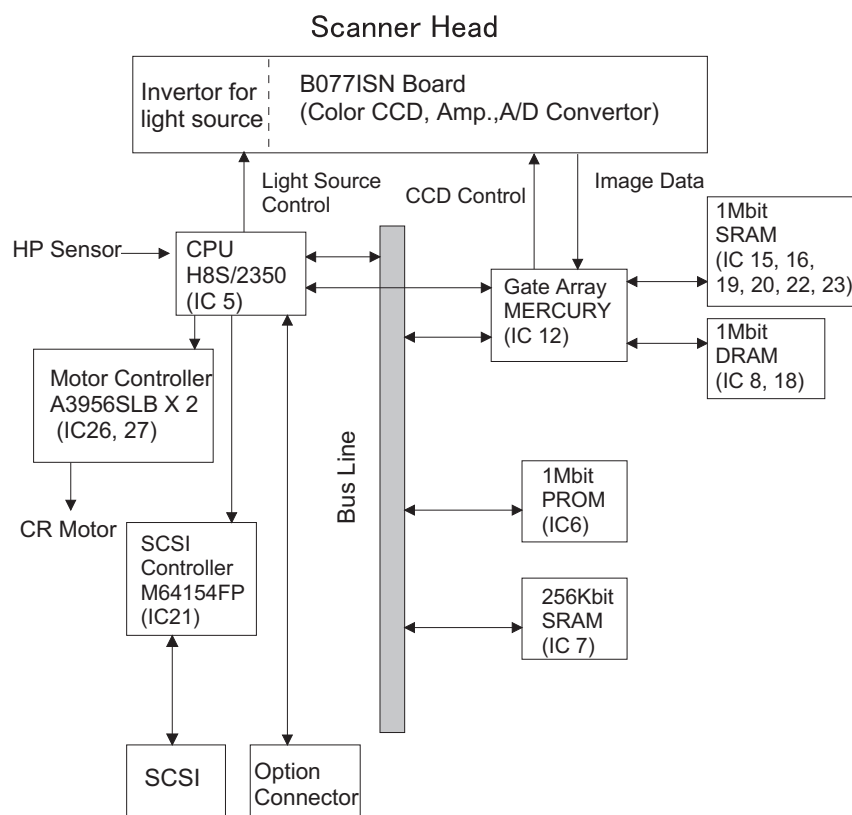


Figure 2-1. Block Diagram of Control Circuit

Table 2-1. Functions of Major Elements

Elements	Location	Function
H8S/2350 CPU	IC5	This CPU controls this scanner and is driven by clock frequency 20 MHz. Also, CPU control light source and timing for motor drive. EEPROM and EPROM are connected to CPU.
MERCURY GA	IC12	This gate array has following functions. <ul style="list-style-type: none"> • Shading Correction • Gamma Correction • CCD Sensor Control • A/D Converter Control • Color Correction • Zoom • Set Digital Half -Toning • AAS (Auto area segmentation) • CPU Support • Memory Control • Light quantity Control • Generates Power On, Reset signals • Generates Clock signal Six 1Mbit SRAM and two 128Mbit DRAM are connected to this gate array.
A64154FP	IC6	SCSI Controller
A3956SLB	IC26, 27	Carriage Motor Driver

CHAPTER

3

DISASSEMBLY AND ASSEMBLY

3.1 Disassembly and Assembly

This section explains disassembly procedure of GT-9600. Since the components of GT-9500 and GT-9600 are basically same, items only for GT-9600 are explained here.

3.1.1 Bottom Plate Removal

1. Remove 17 screws(CBB, 3x12) and 2 screws(CBS, 3x6) securing "Bottom Plate" to "Housing, Lower".
2. Remove "Bottom Plate" from "Housing, Lower".

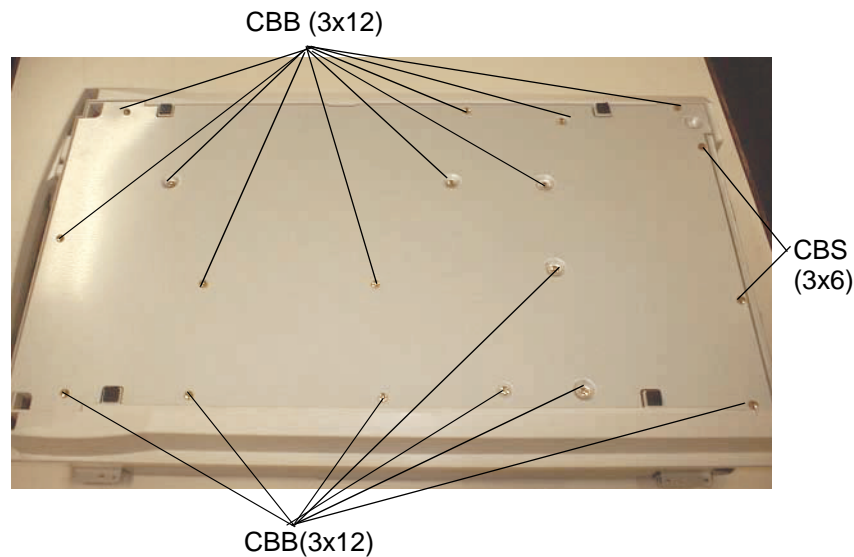


Figure 3-1. Bottom Plate Removal

3.1.2 B035 Power Supply Board Removal

1. Remove "Bottom Plate". (See "Bottom Plate Removal" on page -14)
2. Disconnect harness from the connectors on the B035 power supply board.
3. Remove 5 screws (CBB, 3x12) securing B035 power supply board to "Housing, Lower".
4. Remove B035 power supply board from "Housing, Lower".

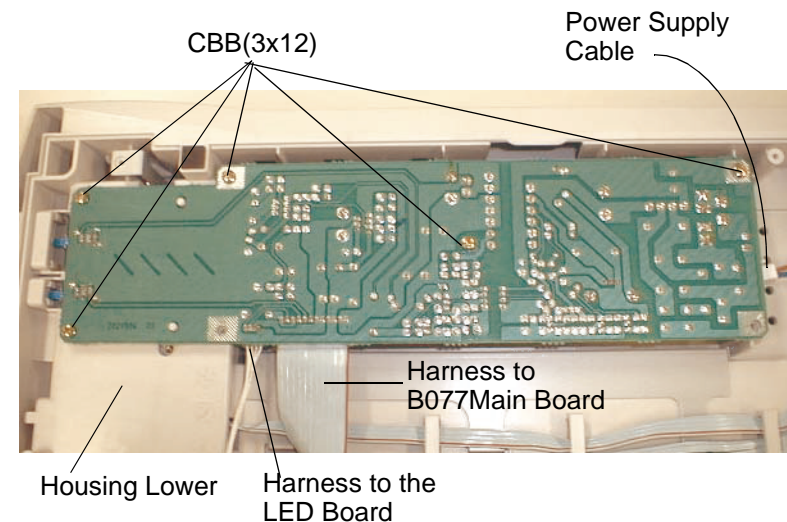


Figure 3-2. B035 Power Supply Board Removal

3.1.3 B077 MAIN Board Removal

1. Remove Bottom plate. (See “Bottom Plate Removal” on page -14)
2. Remove one screw(CBB, 3x12) securing FFC earth plate to “Housing, Lower”, and remove FFC earth plate.
3. Remove harness from the connectors(CN1, CN2, CN3 and CN4) on the B077 Main Board.
4. Remove 2 screws(CBS, M 3x6) securing “B077 Main Board” to “Shield Plate, Rear”.
5. Remove “B077 Main Board”.
6. Remove 4 screws (CP, M2.5 X 8) securing “Interface Cover” and “B077 Main Board”.
7. Remove “Interface Cover” from B077 Main Board.

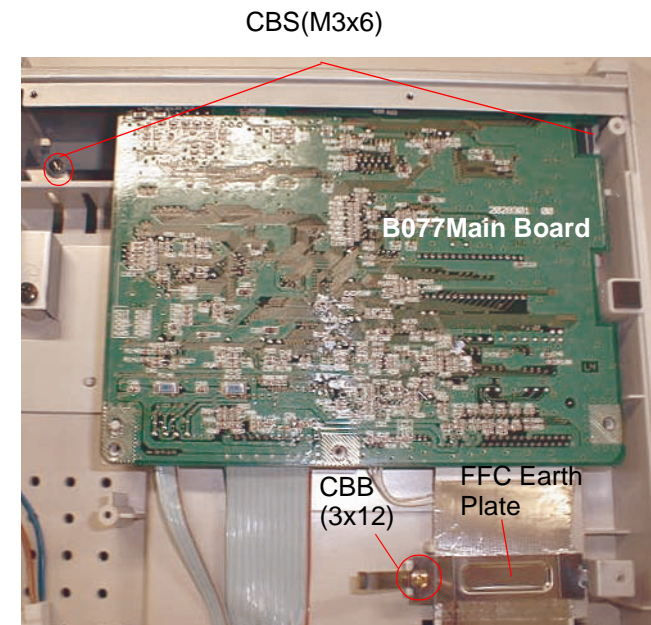


Figure 3-3. B077Main Board Removal

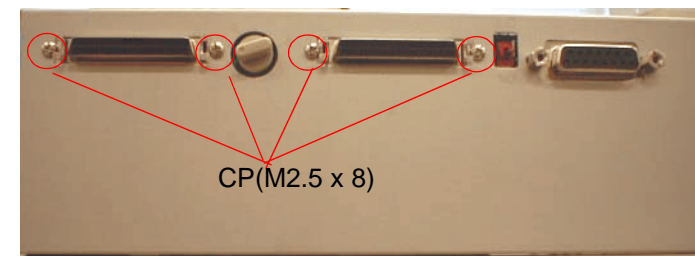


Figure 3-4. Interface Cover Removal

3.1.4 CR Motor Removal

1. Remove "Housing, Upper". (Refer to Service Manual of GT-9500)
2. Remove Bottom plate. (See "Bottom Plate Removal" on page -14)
3. Remove B077 Main Board. (See "B077 MAIN Board Removal" on page -15)
4. Remove 5 screws(CBS, M3x6) securing "Center Rail" and "Shield Board" from the back of scanner. Also, remove one screw(CB, 3x6) securing "CR Motor Assembly", earth plate, and motor from the back of scanner.
5. Remove carriage assembly. (Refer to Service Manual of GT-9500)
6. Remove 3 screws(CBB, 3x12) securing "Center Rail" to "Housing, Lower", and one screw (CBS, M3x6) securing "Center Rail" to "CR Motor Frame".
7. Remove 2 screws(CBS, M3x6) securing "Earth Plate, Front" and "Frame, Front", and remove "Center Rail".

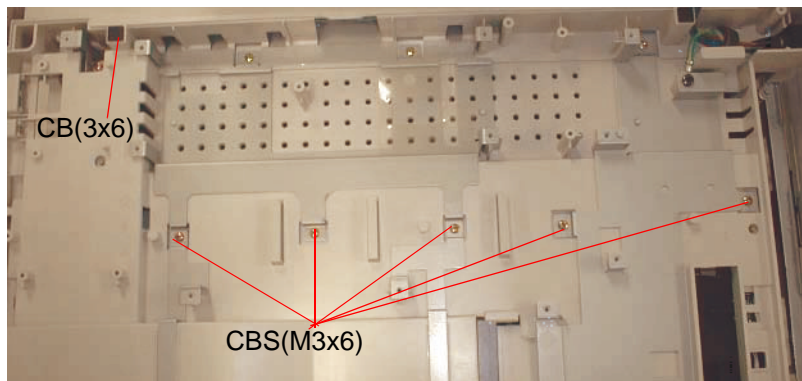


Figure 3-5. Screws at the Circuit Board Side Removal

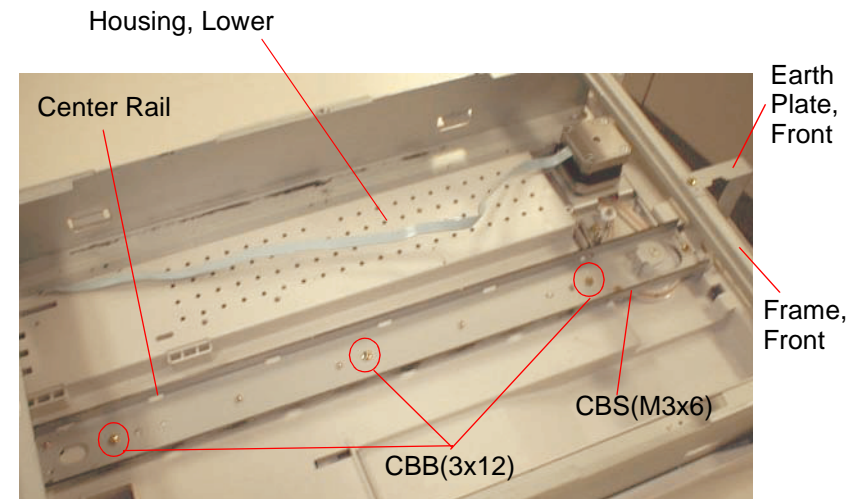


Figure 3-6. Center Rail Removal

8. Remove one screw(CBB, 3x12) securing the motor, and remove the motor.
9. Loosen a screw(CBS, M3x6) securing the "Tension Lever Assembly" to "Motor Frame", move "Lever Assembly, Tension" to the arrowed direction, releasing the tension of the timing belt of CR motor. Then, remove "Timing Belt B".
10. Remove 3 "Shaft, Damper, CR" and remove "CR Motor" from "Motor Frame".

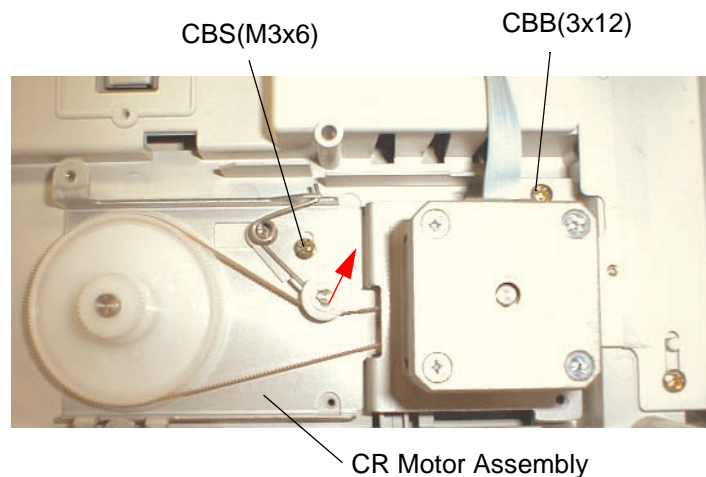


Figure 3-7. CR Motor Assembly Removal

3.1.5 Lamp Assembly Removal

1. Remove carriage assembly. (Refer to Service Manual of GT-9500)
2. Remove 2 screws(CB, M3x6) securing "Cover, Rear, Carriage" to "Carriage Assembly", and remove "Cover, Rear, Carriage".
3. Remove 3 screws (CB, M 3x6) securing "Cover, Carriage" to "Carriage Assembly", and remove "Cover, Carriage".



Figure 3-8. Carriage Cover Removal

4. Remove 2 screws(CB, 3x6) securing "Invertor Board" to "Carriage Assembly". Lift up "Invertor Board" and remove the harness of "Lamp Assembly" from the connector on the "Invertor Board".
5. Remove "Lamp Assembly".

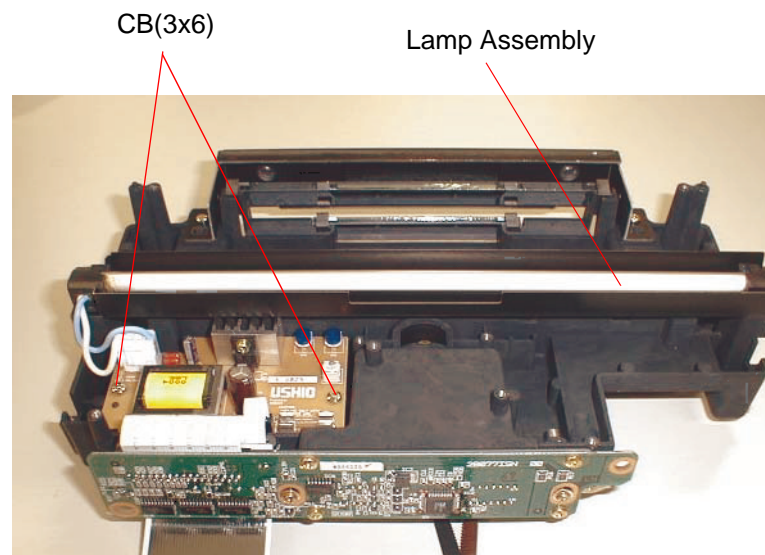


Figure 3-9. Lamp Assembly Removal

CHAPTER

4

ADJUSTMENT

4.1 Adjustment

Origin Adjustment required for GT-9500 is not necessary for GT-9600.

CHAPTER

5

TROUBLESHOOTING

Refer to Service Manual of GT-9500.

CHAPTER

6

MAINTENANCE

Refer to Service Manual of GT-9500.

CHAPTER

7

APPENDIX

7.1 Scanner Connection

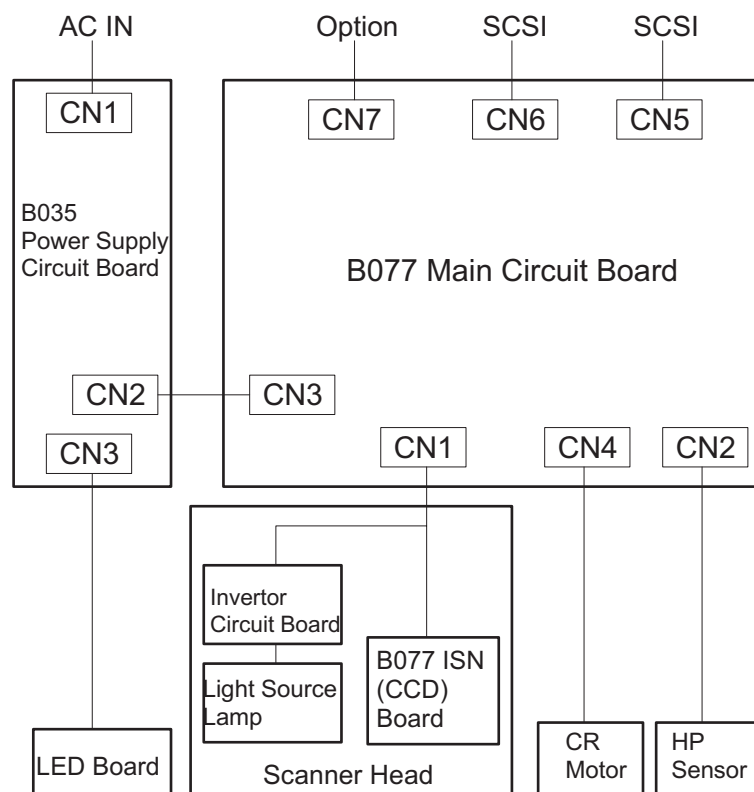


Figure 7-1. Internal Connection

7.2 Connector

This section explains the connectors connected to the circuit boards and their locations. Table 7-2 and 7-3 show signal name of each connector and its description. Also, since the basic component of GT-9500 and GT-9600 are same, items only for GT-9600 are explained here.

Table 7-1. Connector

Board Name	Connector	Pin Number	Content
B077 Main Board	CN 1	39	Scanner Head
	CN 2	3	HP Sensor
	CN 3	12	B077 PSB Power supply Board
	CN 4	4	CR Motor
	CN 5	50	SCSI
	CN 6	50	SCSI
	CN 7	15	Option

Table 7-2. Connector Pin

Pin. No.	Signal Name	I/O	Description
1-2	+24	--	+24 VDC
3	LAMP	O	Lamp Control Signal
4-5	PGND	---	GND
6	--	O	Not Used
7	GND	O	GND
8-9	+12	O	+12 VDC
10	GND	O	GND
11-12	+5	O	+5VDC
13	SHB	O	Shutter control for CCD blue sensor
14	SHG	O	Shutter control for CCD green sensor
15	SHR	O	Shutter control for CCD red sensor
16	RST	O	Reset
17	CK1	O	Clock 1
18	TG	O	CCD Shift Pulse
19	ADCK	O	ADC Clock
20-21	CDS1-2	O	ADC CDS signal
22	CLP	O	ADC CLP Signal
23	WR	O	ADC Serial Data Latch Signal
24	SD	O	ADC Serial Data
25	SCK	O	ADC Serial Data Clock
26	GND	---	GND
27-38	AD 0-11	I	Video Data Bit 0-11
39	GND	--	GND

Table 7-3. Connector Pin

Pin. No.	Signal Name	I/O	Description
1-12	GND	--	GND
13	--	--	Not Used
14-25	GND	---	GND
26-33	SD0-7	I/O	SCSI Data Line 0-7
34	SDP	I/O	Parity Line for SCSI Data
35-37	GND	--	GND
38	TERMPWR	I/O	Terminal Power Supply (+5VDC)
39-40	GND	--	GND
41	/ATN	I	Attention Signal of SCSI
42	GND	--	GND
43	/BSY	I/O	BUSY signal of SCSI
44	/ACK	I	ACKNOWLEDGE signal of SCSI
45	/RST	I	RESET signal of SCSI
46	/MSG	O	MESSAGE signal of SCSI
47	/SEL	I/O	SELECT signal of SCSI
48	/CD	O	CONTROL DATA signal of SCSI
49	/REQ	O	REQUEST signal of SCSI
50	/IO	O	INPUT/OUTPUT signal of SCSI

7.3 Board Component Layout

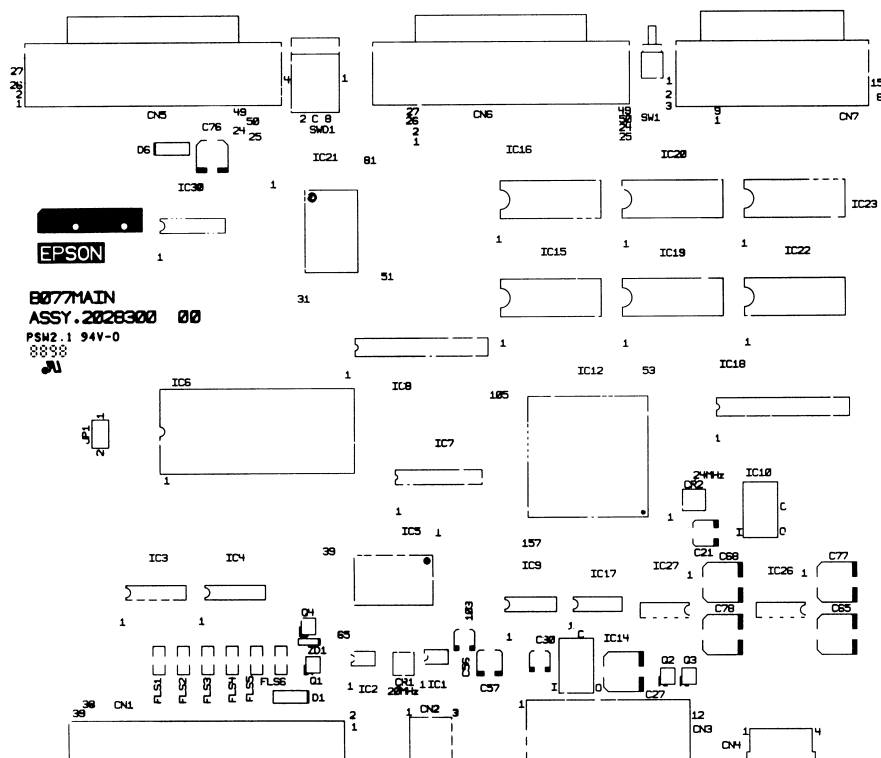


Figure 7-2. B077 Main Board Component Layout

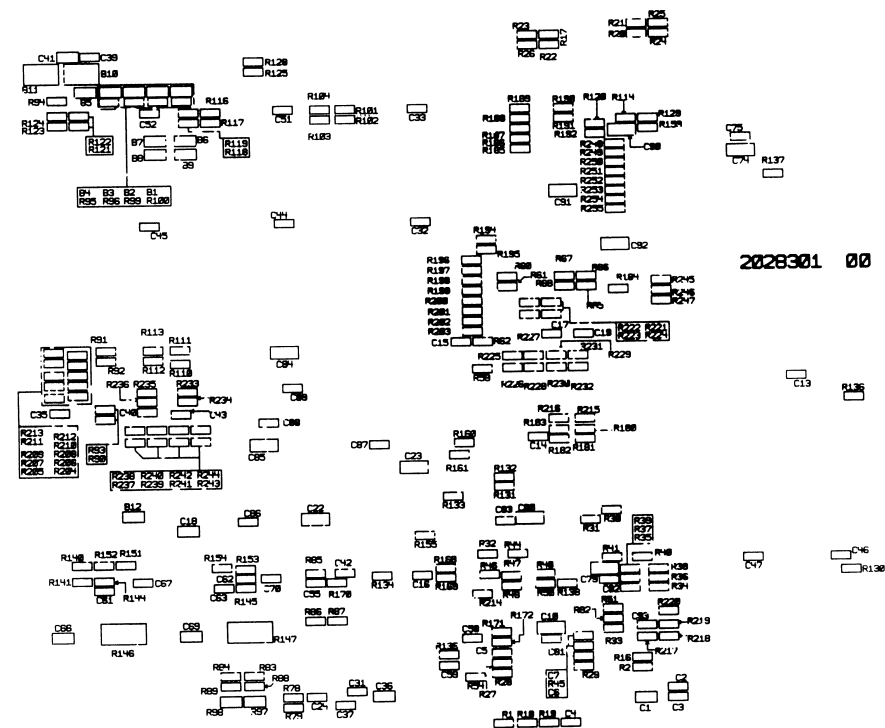
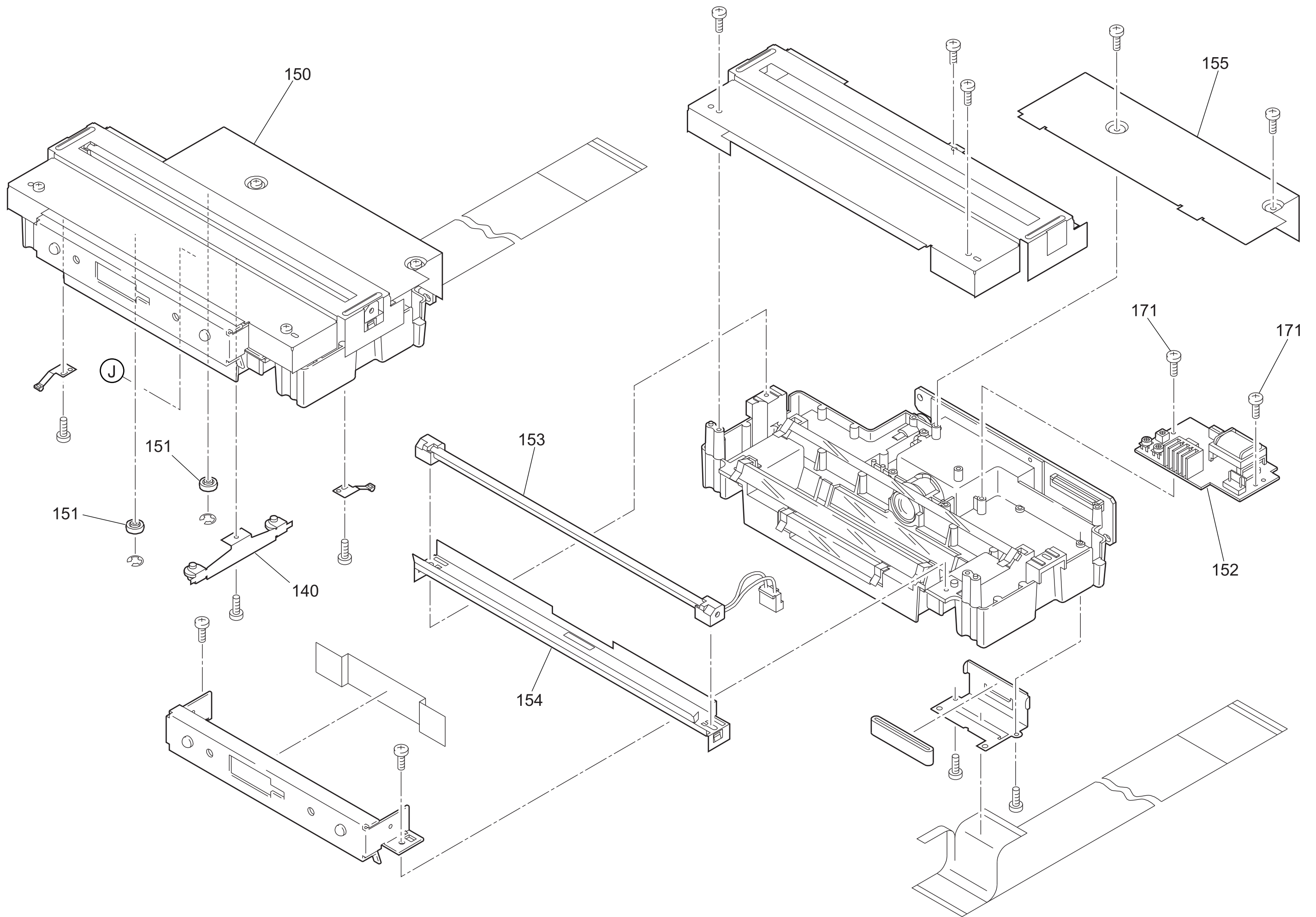


Figure 7-3. B077 Main Board Component Layout(Soldered Side)

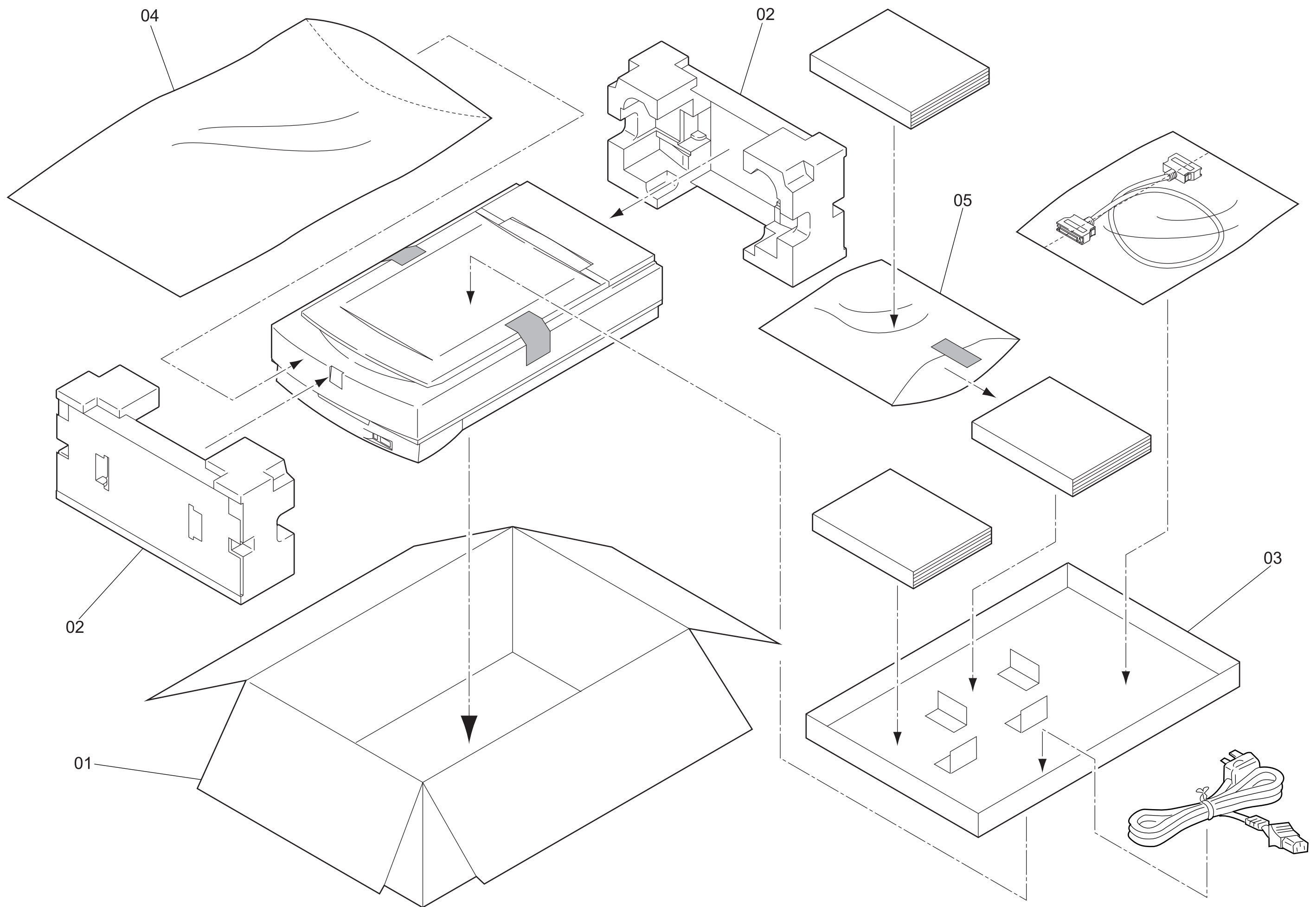
7.4 Exploded Diagram

Following pages show exploded diagram of GT-9600.

- ☐ Exploded Diagram 1
- ☐ Exploded Diagram 2
- ☐ Exploded Diagram 3



EXPLODED DIAGRAM FOR EPSON GT-9600/Expression 800 (2/3)

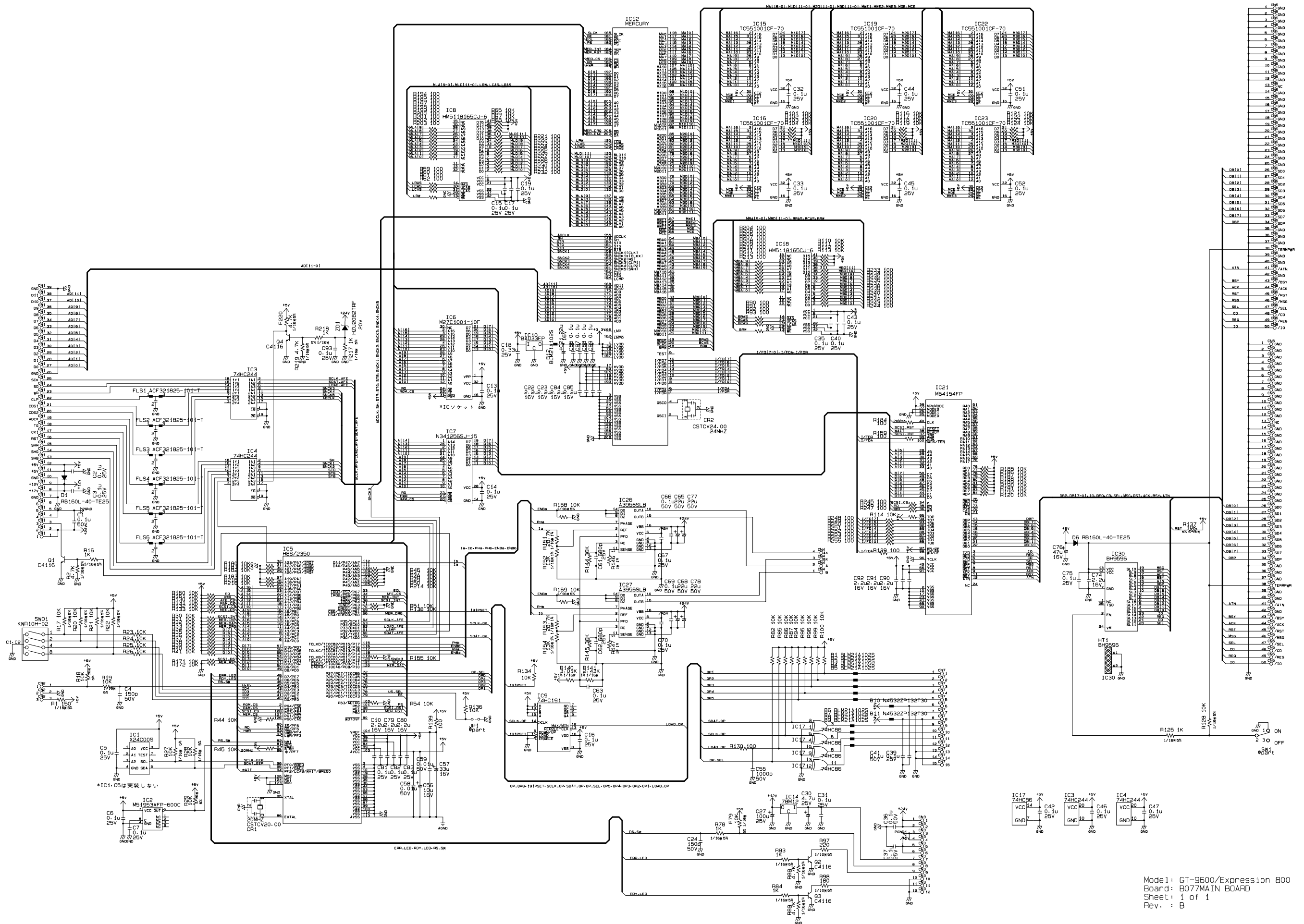


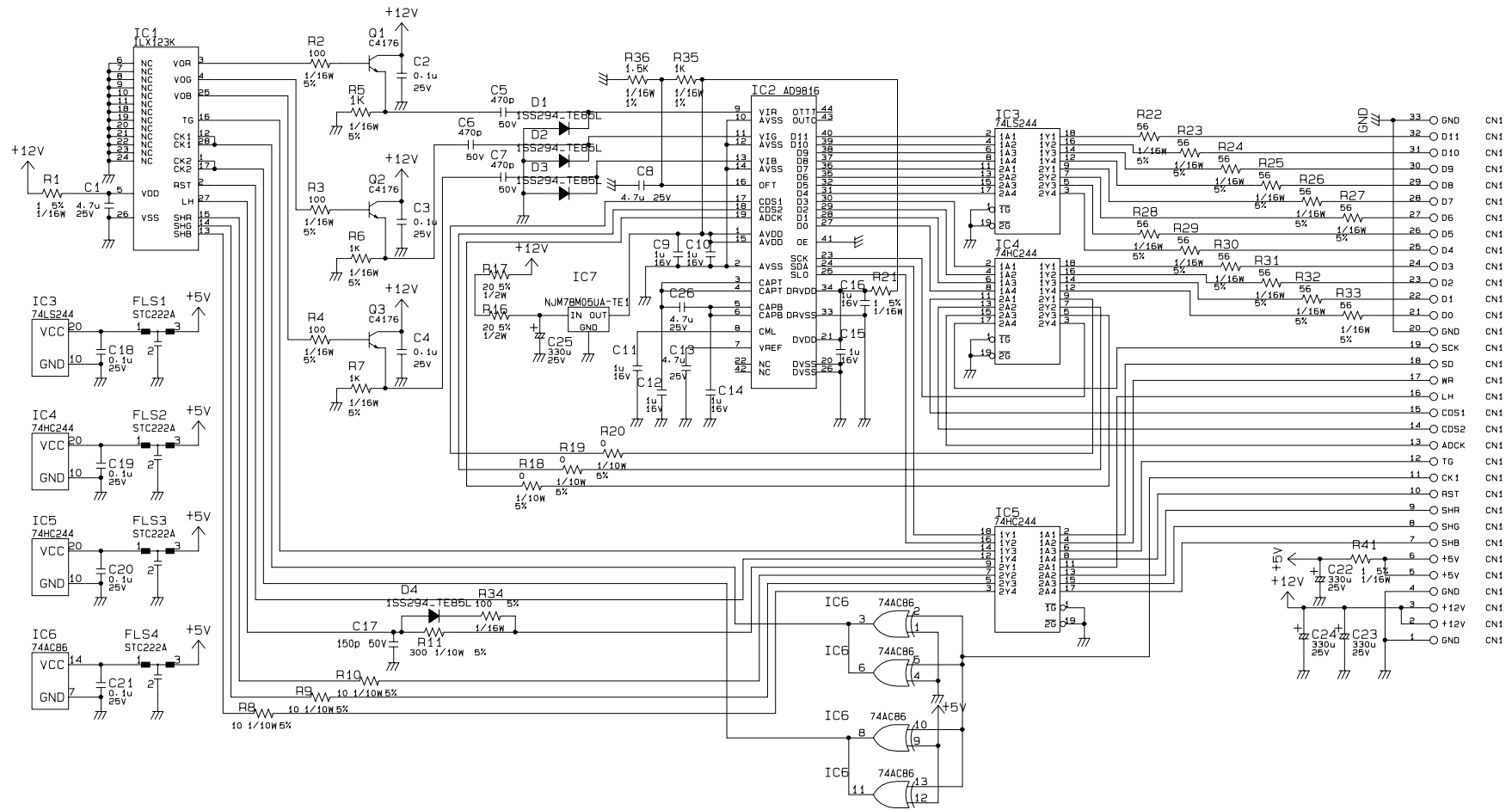
EXPLODED DIAGRAM FOR EPSON GT-9600/Expression 800 (3/3)

7.5 Circuit Schematics

Following pages show the electric circuits of this scanner.

- ☐ B077 Main Board
- ☐ B077ISN Board





Model: GT-9600/Expression 800
Board: B077ISN BOARD
Sheet: 1 of 1
Rev.: B